

METHOD AND APPARATUS FOR REGULATING
CURRENT FOR PROGRAMMABLE LOGIC
CONTROLLERS

ABSTRACT OF THE DISCLOSURE

A method for reducing thermal dissipation in a single PLC package includes implementing a pulse width modulated current regulator including a field effect transistor (FET) switch, and utilizing a turn on delay of the FET to provide a wide operating range of current. The FET has an inherent turn-on time delay that can be exploited such that, as the duty cycle is reduced, the FET's drain to source impedance dominates an inductive path of an output filter and increases output filtering.

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